

CAD Tools Committee Meeting

Wednesday
24 August 2005

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Lab CAD Manager

Topics

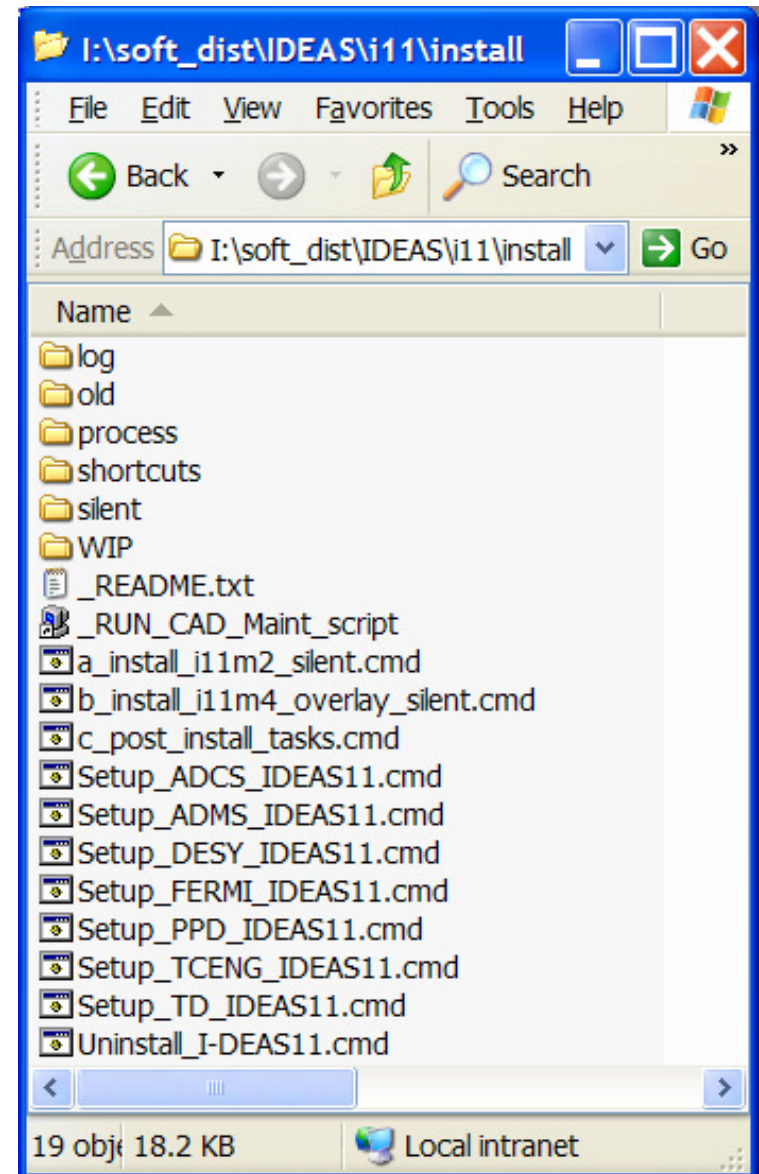
- Old Business
- I-DEAS 12 Announcement
- I-DEAS Install Scripts
- Nightly CAD Maintenance Script
- I-DEAS 11m4 Update
- TC Migration Status
- TDM Cleanup
- Fermi Attribute Editor (FAE)
- CAD Improvements

I-DEAS 12 Announcement

I-DEAS 12 is due
to be released in
September 2005

I-DEAS Install Scripts

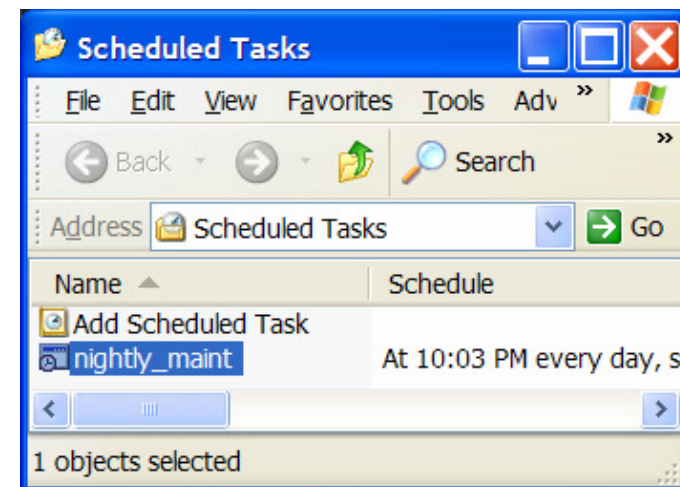
- I-DEAS install scripts available for use but are still a Work-in-Progress
- Located at I:\soft_dist\IDEAS\i11\install
- “_RUN_CAD_Maint_script” shortcut will attempt to do everything I-DEAS related on the PC as long as the instructions are followed in the _README.txt file.
- Each script can also be run individually if needed



Nightly CAD Maintenance Script

- Currently working with Tony Parker on the development of a nightly maintenance script that will install, update, maintain, and synchronize all CAD & Teamcenter software on every PC.
- Can be run manually or automatically through a Scheduled Task.
- Will require every PC to have a daily Scheduled Task that runs the nightly maintenance script in the off hours.
- Plan to use script initially for 11m4 rollout.

```
Setup for FERMI TDM
#####Prerequisite Software Maintenance Beg
Ghostscript Check: PASSED
Ghostview Check: PASSED
#####Prerequisite Software Maintenance End
#####Required System Variable Maintenance Be
CAD_EDIT Sys Var Check: PASSED
GS_CMD Sys Var Check: PASSED
GZ_CMD Sys Var Check: PASSED
TCL_CMD Sys Var Check: PASSED
#####Required System Variable Maintenance Er
#####Java Maintenance Begin#####
Java SDK 1.3.1_04 Check: PASSED
#####Java Maintenance End#####
#####I-DEAS Maintenance Begin#####
I-DEAS 11m2 Check: PASSED
I-DEAS 11m4 Check: PASSED
Post Install Tasks script initiated...
local custom_varbs.cmd Check: PASSED
local userprof.prg Check: PASSED
MyDomain.cfg Patch Check: PASSED
Removed default I-DEAS 11 Start Menu shortcuts: PASSED
Configuring FERMI I-DEAS Environment...
```



I-DEAS 11m4 Update

- Want to have m4 rolled out simultaneously for everyone.
- Need volunteers from each group to test m4 patch.

Examples of things to test:

- User Interface
 - Plotting
 - Drafting; especially macros
 - Modeling/Assembly Operations
- Each PC will need to have 3.4 GB of space available on the C:\ for the update due to C:\ideas\i11 install path requirement.
 - Implementation Date TBD

TC Implementation

Project Plan



Microsoft Word
Document

- Preliminary project plan is being written.
Lots of stuff to figure out
- Still waiting for survey feedback from every group.
ADCS has yet to return survey
- Need to meet with representatives of every group to discuss survey and complete portions of project plan.

TITLE	
Project Plan: I-DEAS® TDM Migration To <u>Teamcenter Engineering™</u>	
Table of Contents	
1	Scope
2	Applicable Documents
3	The Plan.....
3.1	Phase I – Information Gathering
3.1.1	Workflow Specific.....
3.1.2	TDM Specific
3.1.3	Item Naming/Numbering System.....
3.2	Phase II – Transition Planning & Data Preparation

3.2.2 I-DEAS TDM to TC Mapping

3.2.2.1 Project/Library → Group Mapping

Current plan is to map every I-DEAS Project to a TC Group. All items will be mapped to the TC Group assigned to their parent P

3.2.2.2 Users, Roles, & Default Group Mapping

- 1) Users will be assigned to a default TBD group.
- 2) User role assignments will need to be established for each
- 3) Every group will have a default volume assigned.

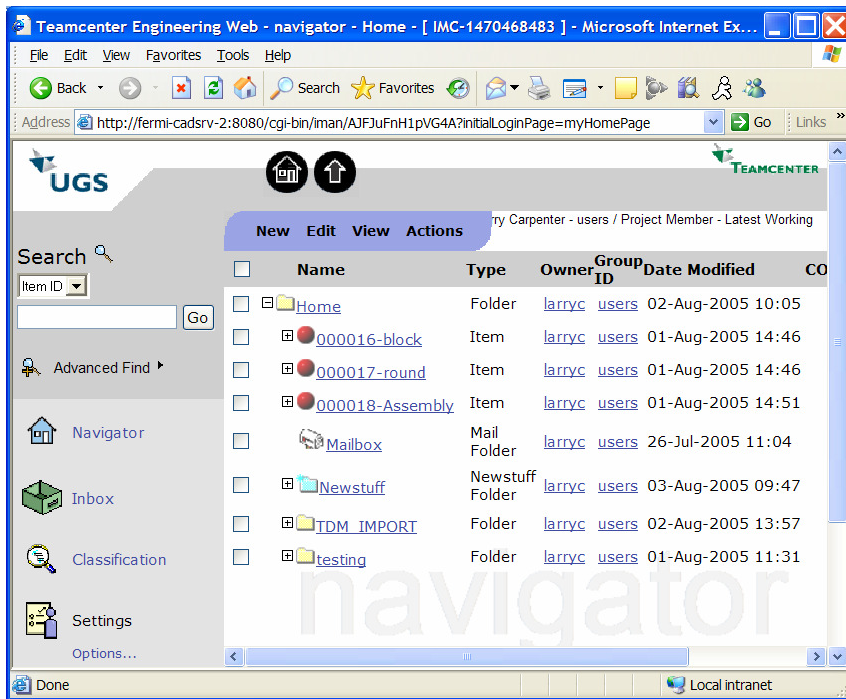
TC Implementation

Hardware/Software Update

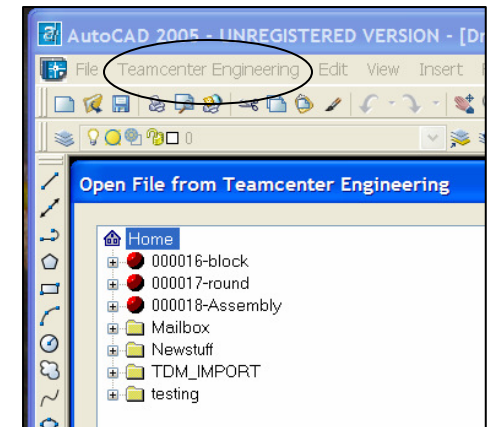
- Oracle test server & Teamcenter configured database instance currently running on cadserv2
- Windows production server (FERMI-CADSRV-1)
 - Serving licenses for I-DEAS, Teamcenter, & ANSYS
 - Location of FERMI TDM
 - Startup scripts & environment settings for I-DEAS
 - Currently FERMI & TD only. Plan to add remaining groups.
 - Registered node for downloading products from UGS ftp site
- Windows test server (FERMI-CADSRV-2)
 - Teamcenter is now running but may need to be reconfigured after returning from *Installation Course* in September.
- Web Access application server (future purchase)

TC Implementation

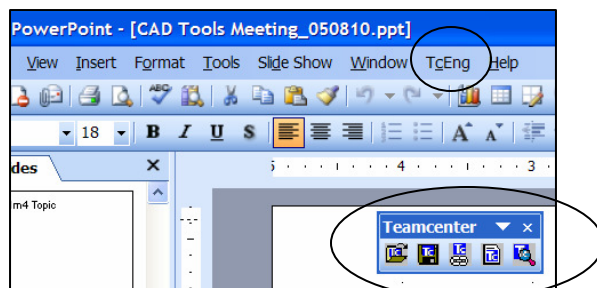
Hardware/Software Update



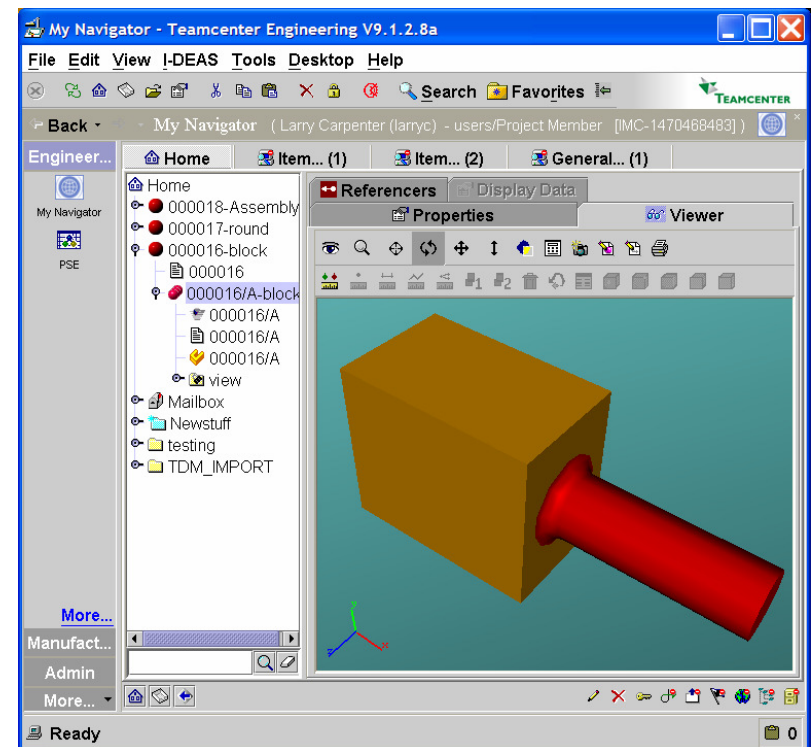
Web Access Interface



AutoCAD Interface



MS Office Interface



Portal Interface

TC Implementation Status

Some Key Things to Address

- “Drawing Centric” vs. “Part Centric” Paradigm for Data Management
TC uses a “Part Centric” philosophy for managing data while Fermilab uses the “Drawing Centric” philosophy. Will need to determine how to best make this transition for both TDM migration and future use of TC.
- Item ID/Item Rev. numbering scheme for parts, assemblies, drawings, FEMs, & any other documents to be managed.
This will have a major effect on the migration and will determine how items are named, grouped, searched, & controlled within TC.
- Legacy Data
Setting up TC to accommodate both TDM & legacy data from DCS and other locations. This should be accounted for when addressing the previous bullet.

TC Migration Effort

Cleanup Progress as of 30 May 2005

			TDM					
miadmin	Error	Type	ADCS	ADMS	FERMI	PPD	TD	ALL
	DUPLICATE_VERSION_NUMBER	1	0	0	0	14	0	15
	MISSING_ITEM_NAME		0	0	0	0	47	47
	MULTIPLE_ITEM_NAMES	1	4	0	0	2	0	111
	MISSING_PART_NUMBER	1	11792	7218	1648	15091	15656	49711
	MULTIPLE_PART_NUMBERS	1	2	0	0	2	0	138
	INVALID_IMPORT_EXPORT_LOCK_STATUS		0	0	0	0	0	307
	INVALID_COPY_OF_MIGRATED_DRAWING	1	3	0	0	0	108	111
	DUPLICATE_PART_NUMBER	2	645	72	19	549	2079	3466
	BAD_MIGRATED_DRAWING_RELATIONSHIP	1	6	0	0	0	11	17
	INVALID_MIGRATED_DRAWING_ATTRIBUTE	1	1	0	0	0	1	2
	DUPLICATE_ITEM_NAME	4	1821	122	37	1401	4043	8042
	INVALID_CHARACTERS_IN_ITEM_NAME	8	0	0	0	0	4	4
	ITEM_NAME_TOO_LONG	16	749	903	19	1455	3440	6557
	PART_NUMBER_TOO_LONG	16	263	6	0	36	511	816
dmin	Data Installation Content	Items Checked Out	602	226	430	478	763	
		Items With Import/Export Locks	455	206	85	93	1278	
	Library Files Check and Location: (missing files)		0	0	0	111	4	
	List of Files Report: (items with >80 characters)		0	0	0	0	0	
	Assembly TMT Problems		3	1	0	21	5	

TC Migration Effort

Cleanup Progress as of 27 July 2005

			TDM					
miadmin	Error	Type	ADCS	ADMS	FERMI	PPD	TD	ALL
	DUPLICATE_VERSION_NUMBER	1			0	14		
	MISSING_ITEM_NAME				0		45	
	MULTIPLE_ITEM_NAMES	1	4		0	2		
	MISSING_PART_NUMBER	1	12094	7401	2817	15799	16177	
	MULTIPLE_PART_NUMBERS	1	3		0	2		
	INVALID_IMPORT_EXPORT_LOCK_STATUS				0			
	INVALID_COPY_OF_MIGRATED_DRAWING	1	3		0		107	
	DUPLICATE_PART_NUMBER	2	675	73	26	578	2088	
	BAD_MIGRATED_DRAWING_RELATIONSHIP	1	5		0		11	
	INVALID_MIGRATED_DRAWING_ATTRIBUTE	1	1		0		1	
	DUPLICATE_ITEM_NAME	4	1894	123	77	1413	4067	
	INVALID_CHARACTERS_IN_ITEM_NAME	8			4		4	
	ITEM_NAME_TOO_LONG	16	955	911	243	1527	3463	
	PART_NUMBER_TOO_LONG	16	370	6	20	37	511	
dmadmin	Data Installation Content	Items Checked Out			575			
		Items With Import/Export Locks			189			
	Library Files Check and Location: (missing files)				0			
	List of Files Report: (items with >80 characters)				0			
	Assembly TMT Problems				0			

TC Migration Effort

Missing & Duplicate Part Numbers

Every item in a TDM should have a unique part number.

- This is especially important for part and assembly items. The Migration Wizard will use the part number of the 3D model to create the Item ID in TC.
- If it doesn't, the migration to TC will assign a generic number which will not usually be what you want.
- An exception is when drawings or FEMs are related to parts or assemblies.
- TC does not allow renaming or renumbering of Items after migration, so it is important to get this right.

TC Migration Effort

Missing 3D Item Part Names

Every 3D item should have a Part Name.

- The TC Item Name will use the I-DEAS Part Name of the 3D item.
- If left blank in I-DEAS, Item Name will be blank in TC.
- The Part Name should be ≤ 32 characters in length. If not, it will be truncated. However, the FULL Part Name will be stored in the Item's description in TC.
- TC does not allow renaming or renumbering of Items after migration, so it is important to get this right.

TC Migration Effort

TDM Purging

- A large portion of the reported TDM errors are from older versions of the same item. This means that many of the errors will go away after purging is done. This should be the FIRST step in fixing these errors in order to prevent wasted time fixing benign errors.
- Every TDM will need to be purged before migration to reduce the number of unique items stored in TC Engineering. It's a great time for house cleaning.
- The first TDM to be purged will be the FERMI TDM.

TC Migration Effort

Remaining Issues

All other issues that remain after purging will be addressed on a case-by-case basis:

- Assembly TMT Problems
- Invalid Export/Import Locks
- Incorrect Part Number Formats
- Migrated Drawing Issues
- Missing Files

Fermi Attribute Editor

- Open discussion
lead by T. Parker